

June 2, 1998

Box Patent Application

Assistant Commissioner for Patents
Washington, Dc 20231

Presented for filing is a new continuation-in-part patent application of:

Applicant: JAY M. SHORT
Title: CONSTRUCTION AND USE OF CATALOGUED NUCLEIC ACID
LIBRARIES THAT CONTAIN ADVANTAGEOUSLY ADJUSTED
REPRESENTATIONS OF DEFINED COMPONENTS

Enclosed are the following papers, including all those required to receive a filing date
under 37 CFR §1.53(b):

| | <u>Pages</u> |
|--|--------------|
| Specification | 80 |
| Claims | 12 |
| Abstract | 1 |
| Declaration(s) (PTO/SB/01) | 2 |
| Drawing(s) | 2 |
| Patent Transmittal (PTO/SB/05) | 1 |
| Small Entity Status-Independent Inventor (PTO/SB/09) | 1 |
| Small Entity Status-Small Business Concern (PTO/SB/10) | 1 |
| Assignment (PTO/SB/15) | 1 |
| Fee Transmittal (PTO/SB/117) | 1 |

Enclosures:

- Permission to use sequence listing (2 pages)
- Postcard

This application is a continuation-in-part (and claims the benefit of priority under 35 USC §120) of U.S. application Serial No. 09/034,724, filed March 4, 1998. The disclosure of the prior application is considered part of (and is incorporated by reference in) the disclosure of this application.

I hereby certify under 37 CFR 1.10 that this correspondence is being deposited with the United States Postal Service as **Express Mail Post Office** To Addressee with sufficient postage on the date indicated below and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Signature

Jay M. Short

Name

DATE OF DEPOSIT:

6/2/98

EXPRESS MAIL NO.:

EM EE090620022 US

This application is a continuation-in-part of U.S. Patent Application entitled "Production and Use of Normalized DNA Libraries", Serial No. 09/034,724, filed March 4, 1998; which is a continuation-in-part of U.S. Patent Application entitled "Production and Use of Normalized DNA Libraries", Serial No. 08/665,565, filed June 18, 1996.

This application is entitled to small entity status. Small entity status established in a previous application is still proper.

| | |
|--|------------------|
| Basic filing fee | \$ 395.00 |
| Independent claims in excess of 3 times \$41 | 1276 |
| Total claims in excess of 20 times \$11 | 0 |
| Multiple dependent claim fee | \$ 135.00 |
| Total filing fee: | <u>\$ 1806.-</u> |

A check for the filing fee is enclosed. A deposit account is being established, the reference number for which is expected to be available shortly and will be communicated immediately upon availability. Once this deposit account is established, any other required fees or any credits may be applied to this deposit account.

If this application is found to be INCOMPLETE, or if a telephone conference would otherwise be helpful, please call the undersigned at 619/453-7020 or 800/523-2990.

Kindly acknowledge receipt of this application by returning the enclosed postcard.

Please send all correspondence to:

Jay M. Short
Diversa Corporation
10665 Sorrento Valley Road
San Diego, CA 92121

Respectfully submitted,

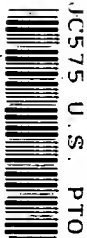

Jay M. Short, Ph.D.

Enclosures

(Check # 10592)

See enclosure

06/03/98



US 575 U.S. PTO

Please type a plus sign (+) inside this box → ☒PTO/SB/05 (4/98)
Approved for use through 09/30/2000. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))

Attorney Docket No.

First Inventor or Application Identifier

Jay M. SHORT

Title Construction and use of catalogued nucleic acid...

Express Mail Label No. EM EE 090620022 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ * Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages 93]
(preferred arrangement set forth below)
- Descriptive title of the Invention 80
- Cross References to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to Microfiche Appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s) 12
- Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 2]
4. Oath or Declaration [Total Pages 2]
a. ☒ Newly executed (original or copy)
b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))
(for continuation/divisional with Box 16 completed)
i. ☐ DELETION OF INVENTOR(S)
Signed statement attached deleting
inventor(s) named in the prior application,
see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).

* NOTE FOR ITEMS 1 & 13: IN ORDER TO BE ENTITLED TO PAY SMALL ENTITY
FEES, A SMALL ENTITY STATEMENT IS REQUIRED (37 C.F.R. § 1.27), EXCEPT
IF ONE FILED IN A PRIOR APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

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Washington, DC 20231

5. ☐ Microfiche Computer Program (Appendix)
6. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)
a. ☐ Computer Readable Copy
b. ☐ Paper Copy (identical to computer copy)
c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☒ Assignment Papers (cover sheet & document(s))
8. ☐ 37 C.F.R. § 3.73(b) Statement of Power of Attorney
(when there is an assignee)
9. ☐ English Translation Document (if applicable)
10. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)
13. ☒ * Small Entity Statement filed in prior application,
Statement(s) Status still proper and desired
(PTO/SB/09-12)
14. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)
15. ☐ Other:

16. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment:
☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No. 09,034,724

Prior application information: Examiner

Group / Art Unit:

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS☐ Customer Number or Bar Code Labelor ☒ Correspondence address below

(Insert Customer No. or Attach bar code label here)

| | | | | | |
|---------|---|-----------|----------------|----------|-------|
| Name | Jay M. SHORT | | | | |
| Address | Attn: Carolyn Erickson, IP 10665 Sorrento Valley Rd. | | | | |
| City | San Diego | State | CA | Zip Code | 92121 |
| Country | USA | Telephone | (800) 523-2990 | Fax | |

Name (Print/Type)

Jay M. SHORT

Registration No. (Attorney/Agent)

Signature

Jay M. SHORT

Date

5/29/98

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

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FEE TRANSMITTAL

Patent fees are subject to annual revision on October 1.
These are the fees effective October 1, 1997.
Small Entity payments must be supported by a small entity statement,
otherwise large entity fees must be paid. See Forms PTO/SB/09-12.
See 37 C.F.R. §§ 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT (\$)

Complete if Known

| | |
|----------------------|--------------|
| Application Number | |
| Filing Date | 6/2/98 |
| First Named Inventor | Jay M. SHORT |
| Examiner Name | |
| Group / Art Unit | |
| Attorney Docket No. | |

METHOD OF PAYMENT (check one)

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number
Deposit Account Name

☐ Charge Any Additional Fee Required Under 37 C.F.R. §§ 1.16 and 1.17

☐ Charge the Issue Fee Set in 37 C.F.R. § 1.18 at the Mailing of the Notice of Allowance

2. ☒ Payment Enclosed:

☒ Check ☐ Money Order ☐ Other

FEE CALCULATION**1. BASIC FILING FEE**

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------|----------------------------|------------------------|----------|
| 101 790 | 201 395 | Utility filing fee | 395 |
| 106 330 | 206 165 | Design filing fee | |
| 107 540 | 207 270 | Plant filing fee | |
| 108 790 | 208 395 | Reissue filing fee | |
| 114 150 | 214 75 | Provisional filing fee | |

SUBTOTAL (1) (\$) 395

2. EXTRA CLAIM FEES

| Total Claims | Extra Claims | Fee from below | Fee Paid |
|--------------------|--------------|----------------|----------|
| 136 | 20** = 116 | X 11 = 1276 | |
| Independent Claims | - 3** = | X = | 0 |
| Multiple Dependent | | | 135 |

**or number previously paid, if greater; For Reissues, see below

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description |
|----------------------------|----------------------------|--|
| 103 22 | 203 11 | Claims in excess of 20 |
| 102 82 | 202 41 | Independent claims in excess of 3 |
| 104 270 | 204 135 | Multiple dependent claim, if not paid |
| 109 82 | 209 41 | ** Reissue independent claims over original patent |
| 110 22 | 210 11 | ** Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) (\$) 1806

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------|----------------------------|--|----------|
| 105 130 | 205 65 | Surcharge - late filing fee or oath | |
| 127 50 | 227 25 | Surcharge - late provisional filing fee or cover sheet | |
| 139 130 | 139 130 | Non-English specification | |
| 147 2,520 | 147 2,520 | For filing a request for reexamination | |
| 112 920* | 112 920* | Requesting publication of SIR prior to Examiner action | |
| 113 1,840* | 113 1,840* | Requesting publication of SIR after Examiner action | |
| 115 110 | 215 55 | Extension for reply within first month | |
| 116 400 | 216 200 | Extension for reply within second month | |
| 117 950 | 217 475 | Extension for reply within third month | |
| 118 1,510 | 218 755 | Extension for reply within fourth month | |
| 128 2,060 | 228 1,030 | Extension for reply within fifth month | |
| 119 310 | 219 155 | Notice of Appeal | |
| 120 310 | 220 155 | Filing a brief in support of an appeal | |
| 121 270 | 221 135 | Request for oral hearing | |
| 138 1,510 | 138 1,510 | Petition to institute a public use proceeding | |
| 140 110 | 240 55 | Petition to revive - unavoidable | |
| 141 1,320 | 241 660 | Petition to revive - unintentional | |
| 142 1,320 | 242 660 | Utility issue fee (or reissue) | |
| 143 450 | 243 225 | Design issue fee | |
| 144 670 | 244 335 | Plant issue fee | |
| 122 130 | 122 130 | Petitions to the Commissioner | |
| 123 50 | 123 50 | Petitions related to provisional applications | |
| 126 240 | 126 240 | Submission of Information Disclosure Stmt | |
| 581 40 | 581 40 | Recording each patent assignment per property (times number of properties) | |
| 146 790 | 246 395 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 149 790 | 249 395 | For each additional invention to be examined (37 CFR 1.129(b)) | |
| Other fee (specify) _____ | | | |
| Other fee (specify) _____ | | | |

* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 1806

SUBMITTED BY

Typed or Printed Name Jay M. SHORT (Applicant)

Signature

x *Jay M. Short*

Date

x 5/29/98

Complete (if applicable)

Reg. Number

Deposit Account User ID

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Jay M. Short

Art Unit :

Serial No. :

Examiner :

Filed : 06/02/98

Title : CONSTRUCTION AND USE OF CATALOGUED NUCLEIC ACID
LIBRARIES THAT CONTAIN ADVANTAGEOUSLY ADJUSTED
REPRESENTATIONS OF DEFINED COMPONENTS

Assistant Commissioner for Patents
Washington, DC 20231

PERMISSION TO USE SEQUENCE LISTING

The above-identified patent application lacks a substitute paper copy of the Sequence Listing for inclusion into the Specification, as well as a computer readable form of the Sequence Listing. Applicants respectfully direct the attention of the Office to the following:

1. A complete paper copy of the Sequence Listing is included in the Specification at pages 70-76. This paper copy is identical to the paper copy of the Sequence Listing which is included in the Specification of U.S. Patent Application Serial No. 08/665,565; to wit, ("the '565 application").
2. A computer-readable form of the Sequence Listing identical to the paper copy of the Sequence Listing is on file in the '565 application. Pursuant to 37 CFR §1.821(e) I, reference to the computer-readable form on file in the '565 application patent is hereby made, which computer-readable form was filed in the '565 application on June 18, 1996. Said computer-readable form is identical to both the copy of the Sequence Listing on file in the '565 application and the paper copy of the Sequence Listing submitted in the present application, save that pertinent information (such as new address of Applicant) has been corrected. Applicants submit that the forgoing satisfies the requirements of Rule 1.821. If there are any questions regarding this response, the Office is invited to contact the undersigned.

[illegible]

Date: 5/2/98

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